Quality and Access to Care for Cardiovascular Disease Prevalence in Women Veterans: Population Estimate Using Electronic Health Records

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INTRODUCTION

Electronic Health Records are used to measure quality indicators for cardiovascular disease (CVD), but have not been tested for sensitivity and specificity. Computerized Patient Record System (CPRS) used by the Veterans Health Affairs (VHA), has active CVD clinical reminders from Healthcare Effectiveness Data & Information Set (HEDIS) that are compared nationally. San Bernardino County, CA has a 7.8% prevalence of self-reported CVD in both genders. For HEDIS measures, there is only a 4 point CVD composite score gender difference for VHA nationally, but at the Loma Linda VHA there is an 18 point gender difference (2016). Women Veterans (WV) are known to have high rates of CVD risk factors, e.g., tobacco use and post traumatic stress disorder, putting them potentially at higher risk for CVD than non-veteran women. We completed the 1st quality improvement chart review of CVD diagnoses in all WV at the Veterans Affairs Loma Linda Healthcare System for HEDIS quality measures.

MATERIAL AND METHODS

Using CPRS, physicians reviewed the records of every WV currently enrolled in primary care for CVD diagnostic accuracy to determine the specificity of the HEDIS screen for ischemic heart disease (IHD), stroke (CVA/TIA) and peripheral ischemic disease (PID). Those WV mis-classification by HEDIS codes were re-categorized for non-IHD, such as valvular or hypertensive CVD.

RESULTS

In our WV population of 3,982 (only 8% of VHA patients), we identified 257 WV (6.4% CVD prevalence) by CPRS with at least 1 CVD diagnostic code. After clinician review, 70% (N=181) were confirmed as CVD positive, 30% (N=76) were CVD negative and 1.5% (N=4) transgender patients were excluded. Confirmed CVD diagnoses: 119 (66 %) with IHD, 38 (21%) CVA/TIA, 7 (4%) PID and 17 (9%) with multiple CVD diagnoses.

CONCLUSION

Electronic Health Record screening methods overestimate CVD by 30% (N=181/257) in WV which may reduce specificity of HEDIS quality measures. Our study indicates revised screening codes in CPRS could improve the accuracy of CVD identification and ability to compare more meaningful data across the VHA facilities. VHA provides open access to care for WV which may improve their CVD outcomes compared to women in the community.

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